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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/599,660	06/22/2000	Jorg G. Moser	BJA243A	7532

7590

08/13/2002

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EXAMINER

GUPTA, ANISH

ART UNIT	PAPER NUMBER
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1653

DATE MAILED: 08/13/2002

9

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/599,660	<b>Applicant(s)</b> MOSER, JORG G.	
	<b>Examiner</b> Anish Gupta	<b>Art Unit</b> 1653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 11-23 is/are pending in the application.
- 4a) Of the above claim(s) 5,7,11,13,16 and 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,12,14,15 and 18-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s) _____   |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>6</u> | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Election/Restriction*

1. In the response, filed 5-17-02, Applicants elected a parachute structure of "glucosamine bonded to a trifunctional bridging unit, e.g. triazine trichloride or trimesic acid trichloride." The therapeutic component was chosen to be a photosensitizer such as porphyrin or pheophorbide or bacteriopheophorbide, chlorin or bacteriochlorin or purpurin. Applicants also chose the spacer as either a poly-amino acid, beta-amino acid, or gamma-amino acid. In a telephone call was made to Mr. Skutnik on August 7, 2002, to advise him that the election of species in the response was improper. The election was improper since a single disclosed species had not been elected, rather an election of sub-generic species had been made. Applicants were requested to elect, during this telephonic conversation, a single disclosed species. Applicants complied and requested that the species be a glucosamine bonded to a triazine trichloride, the therapeutic structure as bacteriopheophorbide and the spacer as the beta amino acid. Applicants also requested if a search could also be done of the therapeutic structure of pheophorbide.

A search was conducted for the elected species of glucosamine- triazine trichloride - bacteriopheophorbide or glucosamine- triazine trichloride -pheophorbide complex with a spacer as a beta amino acid. No prior art was found on the elected species and the search was subsequently extended to the broad Markush to determine patentability of the claim. Prior art was found on the species of a complex of glucosamine bonded to an antitumor compound through a peptide linker. Claims 1-4, 6, 8, 12, 14-15, 18-23 read on this species and an office action follows below. Claims 5, 7, 11, 13, 16-17 are withdrawn from consideration as being drawn to a non elected species.

*Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-4, 6, 8, 12, 14-15, 18-23 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the claim seems incomplete with respect to "defined distance from the membrane within cells" since it is unclear what role the complex plays in the defining this distance. The claims do indicate if the complex maintains or limits the defined distance. Appropriate correction is requested.

In claim 2 it is unclear what is a defined action diameter. Does the claim intend a specific diameter for the hydrophilic moiety? If so then such a diameter should be recited in the claim. Without this information, one cannot readily ascertain if a hydrophilic moiety possesses the desired defined action diameter limitation of the claim.

In claim 4, it is unclear as to what constitutes a specific attachment point to selectins. That is, what radicals in the hydrophilic moiety would be specific attachments points for selectins.

In claim 8, the phrase "type and number of said spacer" seem unclear. Applicants are requested to amend the claim to read "... wherein said spacer defines the distance of said therapeutic. . ." so as to avoid any indefiniteness with respect to number or type of spacer.

In claim 12 it is unclear how the parachute structures are modified with signals. That is, it is unclear if different organic molecules attached to achieve such modification or some

microorganism or cell is attached to achieve the signal. The claim is indefinite with respect to modified with "signals" for it is unclear what modifications would constitute "signals."

Note that claims 16-17 were withdrawn from consideration. However to further prosecution, claim 16 and 17 have been examined for possible 112 second paragraph issues even though the claims were held as non-elected.

In claim 16, there is insufficient antecedent basis for the limitation "said member" in the base claim 5.

In claim 17, it is inappropriate to recite "eukaryotic/prokaryotic cell." Applicants are requested to use "and" or "or" instead of "/."

In claim 17, it is unclear as to the intended meaning of "region." The claims state that the method is for the destruction of cells. Thus, does the region mean the internal environment of a cell or the external environment of a cell. It is unclear if the administration of the complex via oral routes, such as the mouth, constitutes as part of the "region." The claim is therefore indefinite.

In claim 17, it is unclear as to the duration of time (seconds, minutes, or hours) that constitute "pretreatment time" since the claim does not provide for a definition of pretreatment time. The claim is indefinite.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6, 8, 12, 14-15, 18-23 rejected under 35 U.S.C. 102(b) as being anticipated by

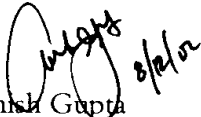
Bailly et al.

The claims are drawn to a complex and a method of selective destruction of eukaryotic and prokaryotic cells by using the complex having one parachute structure and one therapeutic compound.

The reference teaches a complex comprising m-AMSA, which is active against a wide spectrum of transplantable tumors including L1210 and P288 leukemia, B16 melanoma, Lewis lung carcinoma, C3H mammary adenocarcinoma and mammary tumor in CD8F1 mice, to glucosamine using a Glu-Gly peptide as the linker or spacer (see page 696 and 695). Note that the m-AMSA reads on the therapeutic compound limitation, glucosamine reads on the parachute structure limitation. The Glu-Gly limitation read on limitation of claims 19-20. The reference, therefore, anticipates the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anish Gupta whose telephone number is (703) 308-4001. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Low, can normally be reached on (703)308-2923. The fax phone number of this group is (703) 308-4242.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

  
Anish Gupta

  
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